

## ABSTRACT

A voltage regulator includes an input terminal adapted for being coupled to an input voltage and an output terminal adapted for being coupled to a load. The voltage regulator includes a first switch adapted for selectively coupling to the input terminal and to the output terminal, a current sensor for measuring an output current flowing towards the output terminal, a voltage sensor for measuring the output voltage from the output terminal, and a digital controller which drives the first switch. The controller closes the first switch when the error voltage is less than a first preset value of voltage and opens the first switch when the output current is greater than a first preset value of current.